

What is claimed:

**1. An all-in-one prophy angle comprising:**

an angled prophy handpiece with a driveshaft with first and second ends, the first driveshaft end is mounted to an electrical or air driven dental handpiece;

an elastomeric dental prophy cup with a longitudinal axial direction, a rear end and a front end, an inside and an outside wherein the rear end of the prophy cup is attached to the second driveshaft end of the angled prophy handpiece;

a solid core prophy paste with a longitudinal axial direction, a front end and a rear end wherein the solid core prophy paste is contained longitudinally within the inside of the prophy cup; and

a force means for extruding the solid core prophy paste towards the front end of the elastomeric prophy cup.

**2. An all-in-one prophy angle as in claim 1 wherein the prophy cup front end defines a skirt which flares outwardly towards the front end, the skirt is used for polishing the teeth.**

**3. An all-in-one prophy angle as in claim 1 wherein an annular retaining lip defines the inside of the front end of the prophy cup, the lip retains the the solid core prophy paste within the inside of the prophy cup.**

**4. An all-in-one prophy angle as in claim 1 wherein the solid core paste is defined by circumferential parallel rings positioned at a right angle to the prophy paste's longitudinal axis, the grooves are sized to fit the annular retaining lip which, when seated in the annular groove, retains the prophy paste within the prophy cup.**

**5. An all-in-one prophy angle as in claim 1 wherein the force means is a spring with a front end and a rear end positioned between the inside rear end of the prophy cup and the rear end of the solid core prophy paste, the spring applying force to the solid core which holds the solid core against the tooth surface during use of the prophy angle.**

**6. An all-in-one-prophy angle as in claim 1 wherein a cylindrical piston is fitted to the inside diameter of the prophy cup and is positioned between the rear end of the solid core prophy paste and the front end of**

the spring.

**7.** An all-in-one prophy angle as in claim 1 wherein the prophy cup skirt is placed in the patient's mouth and is:

pushed against the tooth surface which;

widens the diameter of the skirt which;

widens the circumference of the annular retaining ring which;

releases the annular retaining ring from the circular groove in the solid core prophy paste which;

releases the solid core prophy paste which;

presses the solid core prophy paste against the tooth surface due to the spring pressure; and

dispenses the prophy paste uniformly on the surface during the rotation of the prophy cup.

**8.** An all-in-one prophy angle as in claim 1 wherein the elastomeric prophy cup is comprised of natural rubber or polyisoprene, both with a durometer hardness value of about 40 to about 70.

**9.** An all-in-one prophy angle as in claim 1 wherein the the elastomeric prophy cup contains an abrasive such as pumice or minerals which creates a polishing effect on the tooth surface during the use of the prophy cup.

**10.** An all-in-one prophy angle cup comprising:

a prophy angle with containing a driveshaft with first and second ends, the first driveshaft end is attached to a power source;

a hollow 2-6 mm diameter second driveshaft end;

an elastomeric dental prophy cup with a longitudinal axial direction, a rear end and a front end, an inside and an outside wherein the rear end of the prophy cup is attached to the second driveshaft end of the angled prophy handpiece;

a solid core prophy paste with a longitudinal axial direction, a front end and a rear end wherein the solid core prophy paste is contained longitudinally within the inside of the prophy cup the paste extends from the front of the prophy cup into the hollow interior of the prophy drive shaft; and

a force means which applies pressure to the rear end of the solid core prophy paste.

11. An all-in-one prophy angle as in claim 10 wherein the prophy cup front end defines a skirt which flares outwardly towards the front end, the skirt is used for polishing the teeth.

12. An all-in-one prophy angle as in claim 10 wherein an annular retaining lip defines the inside of the front end of the prophy cup, the lip retains the the solid core prophy paste within the inside of the prophy cup.

13. An all-in-one prophy angle as in claim 10 wherein the solid core paste is defined by circumferential parallel rings positioned at a right angle to the prophy paste's longitudinal axis, the grooves are sized to fit the annular retaining lip which, when seated in the annular groove, retains the prophy paste within the prophy cup.

14. An all-in-one prophy angle as in claim 10 wherein the force means is a spring with a front end and a rear end positioned between the inside rear end of the prophy cup and the rear end of the solid core prophy paste, the spring applying force to the solid core which holds the solid core against the tooth surface during use of the prophy angle.

15. An all-in-one-prophy angle as in claim 10 wherein a cylindrical piston is fitted to the inside diameter of the prophy cup and is positioned between the rear end of the solid core prophy paste and the front end of the spring.

16. An all-in-one prophy angle as in claim 10 wherein the prophy cup skirt is placed in the patient's mouth and is:

pushed against the tooth surface which;

widens the diameter of the skirt which;

widens the circumference of the annular retaining ring which;

releases the annular retaining ring from the circular groove in the solid core prophy paste which;  
releases the solid core prophy paste which;  
presses the solid core prophy paste against the tooth surface due to the spring pressure; and  
dispenses the prophy paste uniformly on the surface during the rotation of the prophy cup.

17. An all-in-one prophy angle as in claim 10 wherein the elastomeric prophy cup is comprised of natural rubber or polyisoprene, both with a durometer hardness value of about 40 to about 70.
18. An all-in-one prophy angle as in claim 10 wherein the the elastomeric prophy cup contains an abrasive such as pumice or minerals which creates a polishing effect on the tooth surface during the use of the prophy cup.

19. An all-in-one prophy angle comprising:

a prophy angle with an internal containing a driveshaft with first and second ends, the first driveshaft end is attached to power source;

a hollow 2-6 mm diameter second driveshaft end;

an elastomeric dental prophy cup with a longitudinal axial direction, a rear end and a front end, an inside and an outside wherein the rear end of the prophy cup extends and is contained within the second end driveshaft hollow interior

a solid core prophy paste with a longitudinal axial direction, a front end and a rear end wherein the solid core prophy paste is contained longitudinally within the inside of the prophy cup the paste extends from the front of the prophy cup into the hollow interior of the prophy drive shaft; and

a force means which applies pressure to the rear end of the solid core prophy paste.

20. An all-in-one prophy angle as in claim 19 wherein the prophy cup front end defines a skirt which flares outwardly towards the front end, the skirt is used for polishing the teeth.

**21.** An all-in-one prophy angle as in claim **19** wherein an annular retaining lip defines the inside of the front end of the prophy cup, the lip retains the solid core prophy paste within the inside of the prophy cup.

**22.** An all-in-one prophy angle as in claim **19** wherein the solid core paste is defined by circumferential parallel rings positioned at a right angle to the prophy paste's longitudinal axis, the grooves are sized to fit the annular retaining lip which, when seated in the annular groove, retains the prophy paste within the prophy cup.

**23.** An all-in-one prophy angle as in claim **19** wherein the force means is a spring with a front end and a rear end positioned between the inside rear end of the prophy cup and the rear end of the solid core prophy paste, the spring applying force to the solid core which holds the solid core against the tooth surface during use of the prophy angle.

**24.** An all-in-one-prophy angle as in claim **19** wherein a cylindrical piston is fitted to the inside diameter of the prophy cup and is positioned between the rear end of the solid core prophy paste and the front end of the spring.

**25.** An all-in-one prophy angle as in claim **19** wherein the prophy cup skirt is placed in the patient's mouth and is:

pushed against the tooth surface which;

widens the diameter of the skirt which;

widens the circumference of the annular retaining ring which;

releases the annular retaining ring from the circular groove in the solid core prophy paste which;

releases the solid core prophy paste which;

presses the solid core prophy paste against the tooth surface due to the spring pressure which; and

dispenses the prophy paste uniformly on the surface during the rotation of the prophy cup.

**26.** An all-in-one prophy angle as in claim **19** wherein the elastomeric prophy cup is comprised of natural rubber or polyisoprene, both with a durometer hardness value of about 40 to about 70.

**27.** An all-in-one prophy angle as in claim **19** wherein the the elastomeric prophy cup contains an abrasive such as pumice or minerals which creates a polishing effect on the tooth surface during the use of the prophy cup.

**28.** An all-in-one prophy angle as in claim **19** wherein the prophy angle is comprised of internal rotational paddles which propel air or a liquid when the prophy angle is run, the air or liquid provides the extruding force means against the solid core prophy paste.